

Circle  $AG$  was illuminated, and the Circle  $bh$  with the same sort by which the corresponding Circle  $BH$  was illuminated, and the rest of the Circles  $ci$ ,  $dk$ ,  $el$ ,  $fm$  respectively, with the same sorts of Rays by which the several corresponding Circles  $CJ$ ,  $DK$ ,  $EL$ ,  $FM$  were illuminated. In the Figure  $PT$  composed of the greater Circles, three of those Circles  $AG$ ,  $BH$ ,  $CJ$ , are so expanded into one another, that the three sorts of Rays by which those Circles are illuminated, together with other innumerable sorts of intermediate Rays, are mixed at  $QR$  in the middle of the Circle  $BH$ . And the like mixture happens throughout almost the whole length of the Figure  $PT$ . But in the Figure  $pt$  composed of the less Circles, the three less Circles  $ag$ ,  $bh$ ,  $ci$ , which answer to those three greater, do not extend into one another; nor are there any where mingled so much as any two of the three sorts of Rays by which those Circles are illuminated, and which in the Figure  $PT$  are all of them intermingled at  $BH$ .

Now he that shall thus consider it, will easily understand that the mixture is diminished in the same Proportion with the Diameters of the Circles. If the Diameters of the Circles whilst their Centers remain the same, be made three times less than before, the mixture will be also three times less; if ten times less, the mixture will be ten times less, and so of other Proportions. That is, the mixture of the Rays in the greater Figure  $PT$  will be to their mixture in the less  $pt$ , as the Latitude of the greater Figure is to the Latitude of the less. For the Latitudes of these Figures are equal to the Diameters of their Circles. And hence it easily follows, that the mixture of the Rays in the refracted Spectrum  $pt$  is to the mixture of the Rays in the direct and immediate Light of the Sun, as the breadth of that Spectrum is to the difference between the length and breadth of the same Spectrum. So

So then, if we are to diminish these would be diminished they answer could to the same purpose from the Prism to placed, with a round all the Sun's Light the middle of his the Prism. For would not any loss Sun, but only to from the Prism the magnitude of that these Circles may Lens is to be placed hole, (that is, even distinctly upon the a Lens placed at a are cast distinctly Rectilinear Sides Experiment became this be done it would very far off, no more instead of that hole as follows.

*Exper. 11.* In a Chamber through shut, at about 10 a Lens, by which distinctly cast upon distance of six, e For according to t